

REMARKS

The application has been amended and is believed to be in condition for allowance.

Claim 13 has been amended as to form only to move the features of the diameters of the threaded sections being different out of the wherein clause, and that the first and second threaded sections having opposing threads. This amendment is non-substantive and does not affect the analysis of the Official Action.

Claims 13, 15, 17-19, 22, 23, 25, and 26 were examined.

Claims 13, 23, and 25 are independent.

There are no outstanding formal matters.

Obviousness Rejections

Claims 13, 14, 18, 19, and 23 are rejected under section 103(a) as obvious over MAAS 5,256,237 in view of HOSHINO 5,419,650 and CRUNWELL 4,704,058.

Claims 15, 17, 20, and 21 were rejected in further view of KRUGER 6,714,544.

Claims 22 and 24 were rejected in further view of HINNERS 4,134,703.

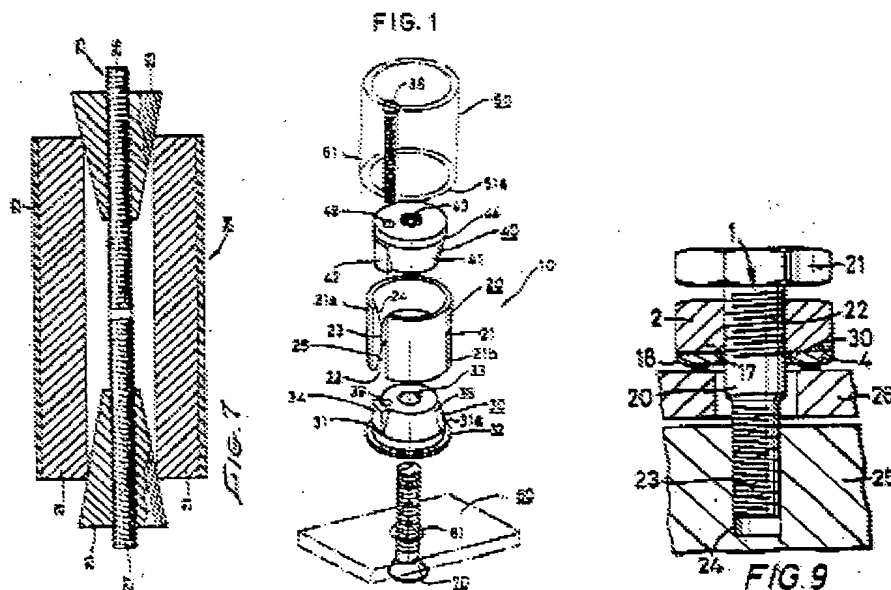
Claim 25 is rejected under section 103(a) as obvious over MAAS in view of HOSHINO and HINNERS.

Claim 26 is rejected in further view of CRUNWELL.

Applicant appreciates the well presented and illustrated explanations as to the reasoning for the rejections. However, applicant respectfully disagrees and requests reconsideration and withdrawal of the rejections. The claims are all believed to be non-obvious and therefore allowance of the claims is solicited.

Claim 13

The combination of MAAS, HOSHINO, and CRUNWELL do not teach or suggest the claim 13. The following figures were presented in the Official Action.



With reference to MAAS Figure 7, the Official Action offers MAAS as disclosing a threaded part comprising a threaded rod (25), the threaded rod (25) comprising two threaded sections

26, 27), the two threaded sections having opposing threads. Figure 7 is also offered as disclosing a radially expandable clamping part, constituted by six identical sections 21 which are said to form a hollow cylinder.

Figure 7 is offered as disclosing two conical expansion bodies (23, 23) located at respective ones of two opposite ends of the clamping part (21), the expansion bodies each threaded onto a different one of the threaded sections of the threaded rod, and the two expansion bodies are adjustable relative to the clamping part (21) to widen the adjusting part 21.

The Official Action (last 4 lines of page 2) acknowledges that MAAS does not disclose the clamping part 21 being made from one piece with a lengthwise slot. The Official Action also acknowledges that MAAS does not disclose the diameters of the two threaded sections being different.

Further Missing Features

Claim 13, however, includes further recitations not addressed by the Official Action.

I. Claim 13 recites (emphasis added) that the "a threaded part (7) comprising a threaded rod (11) configured for attachment to an inner tube (3) of a set of telescoping tubes (3, 5)". MAAS does not disclose a threaded rod configured for attachment to an inner tube of a set of telescoping tubes.

MAAS discloses an inner surface fiber affixation for manufacturing a sensor mandrel (as per the Abstract) with wound

optical fibers on the inner surface of a hollow cylinder. The optical fibers of a sensor wound on the inner surface are less susceptible to damage than are optical fibers wound on the outside of the mandrel, with the fibers supported on a cylinder, which is coated with an adhesive and placed within the sensor mandrel cylinder, at which time the circumference of the supporting cylinder is expanded, causing the fibers to engage the inner surface of the sensor mandrel cylinder. The adhesive is then cured, holding the fibers in place on the inner surface of the sensor mandrel cylinder while the supporting cylinder is contracted and removed from the sensor mandrel cylinder.

Thus, what MAAS teaches is a method where sensor optical fibers are wound on the inner surface of a hollow member (see fibers 3 and hollow member 4 in Figure 1), with the fibers supported on a cylinder (mandrel 2), the circumference of the supporting cylinder is expanded, causing the fibers to engage the inner surface of the sensor hollow member, and then after the adhesive is cured, the supporting cylinder (2) is contracted and removed from the sensor. figure 7 is one embodiment of the supporting cylinder which, during the method, is first expanded and then contracted for removal.

From MAAS, it is clear that there is no teaching of the MAAS threaded rod 27 being configured for attachment to an inner tube of a set of telescoping tubes. MAAS rod 27 would be connected to a drive of some sort in order to expand and contract

the elastic sleeve 22, via the wedges 23 being brought together or moved apart.

II. MAAS also does not teach, as per claim 13, that the expansion bodies (17, 19) come into direct contact and engage a circumferentially uninterrupted interior surface of an outer tube (5) of the set of telescoping tubes (3, 5).

See in MAAS Figure 7, that the wedges 23 come into contact only with the six identical sections 21.

III. Further MAAS fails to teach that in use, the expansion bodies (17, 19) by direct contact engage a circumferentially uninterrupted interior surface of an outer tube (5) of the set of telescoping tubes (3, 5), turning the inner tube (3) relative to the outer tube (5) causes the expansion bodies (17, 19) to move along the respective one of the different threaded sections to each approach the other to widen the clamping part (21) radially, ...

In the invention, the claim requires a configuration such that relative turning of the inner tube with respect to the outer tube causes movement of the expansion bodies. MAAS does not teach or suggest such a feature.

HOSHINO

HOSHINO is offered as teaching (Figure 1) a radially expandable clamping part 20 with a lengthwise slot 22. The Official Action states that "It would have been obvious ... to provide the clamping part of Mass et al. from one piece with a

lengthwise slot as taught by Hoshino in order to enable the clamping part to [be] expanded radially by the force exerted by the outer peripheral tapered surface of the expansion bodies". The clamping part of MAAS was previously identified by the Official Action as the six identical sections 21.

The Official Action has only indicated how the HOSHINO part 20 could be used as a substitute for the MAAS sections 21. The Official Action has offered no reason why this modification of MAAS would be motivated or advantageous. Applicant notes that the MAAS sections 21 already "enable the clamping part to [be] expanded radially by the force exerted by the outer peripheral tapered surface of the expansion bodies". Further, the MAAS sections 21 accomplish this objective in a superior manner in that the gaps which develop between the individual sections 21 (see Figure 6) are kept to a minimum in that the 6 gaps are dispersed between the 6 sections. If the HOSHINO part 20 were used, a single gap at slot 22 would be present and would be much larger than the individual gaps between the MAAS sections 21. The large gap at slot 22 would be less desirable when manufacturing the sensor of MAAS, as such a large gap could affect the shape of the fiber optics 3.

Therefore, one of skill would not make, and would not be motivated to make, the modification proposed by the Official Action.

Further, HOSHINO does not show a threaded rod having two opposite threads, rather HOSHINO requires an additional screw 38 to activate lower expansion body 30. HOSHINO discloses a clamping part in the form of an cylinder having a lengthwise slot. Further, see that the second, lower expansion body of HOSHINO does not have an internal thread at all.

In making this rejection, it is clear that ex post analysis has been applied, i.e., impressible hindsight, as only a narrow selected part of the HOSHINO teaching has been applied.

As noted above, there is no reason to modify MAAS to include "a radially expandable clamping part (21) which is a hollow cylinder and which has a continuous lengthwise slot (25),". It is insufficient, that the prior art could be modified.

The Examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Only if that burden is met, then the burden shifts to the Appellants to overcome the *prima facie* case with argument and/or evidence. (See *Id.*) The Examiner has not satisfied this burden.

In performing the obviousness analysis, the Examiner makes findings of fact and must provide an articulated reasoning supporting the rejection. The Examiner's articulated reasoning in the rejection must possess a rational underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). The Supreme Court citing *In re Kahn*, 441

F.3d 977, 988 (Fed. Cir. 2006) stated that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

There is no viable reasoning for modifying MAAS as suggested in view of HOSHINO. "One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1988). In an obviousness rejection, it is impermissible "to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." *In re Wesslau*, 353 F.2d 238, 241 (CCPA 1965).

CRUNWELL

CRUNWELL is offered as teaching "a threaded part per se (1, Fig. 1) having two threaded sections (22, 23) having opposing threads; wherein a first threaded section (22) has a greater diameter than a second threaded section (23). ... so that the nut member may pass over the first, outermost thread without hindrance ...". The Official Action states that "It would have been obvious ... to provide the first threaded section of MAAS et al. with a greater diameter than the second threaded section as taught by Crunwell in order [that] one of the expansion bodies

slide over the second threaded portion without hindrance and become threadably engaged on the first threaded portion."

The Official Action has correctly characterized CRUNWELL, however; applicant does not see the relevance of CRUNWELL to MAAS. In CRUNWELL a fastening device, intended to be vibration resistant, has a lower shaft of a reduced diameter which is to be threaded in a main part 25. In order to secure the device, there is a nut 2 applied to the upper part of the device shaft. CRUNWELL teaches that by making the diameter of the lower shaft less than the diameter of the upper shaft, the nut 2 can be easily passed over the lower shaft. This is helpful in that the nut 2 must be passed over the lower shaft as the device has a head 21 which prevents the nut 2 from being applied via the top part.

The problem present in CRUNWEL is not present in MAAS. That is, the wedges 23 can easily be applied to the rod 25 from either end. Indeed, in MAAS if the left end of the rod 25 is connected to a drive means, then it would be more convenient to apply the right wedge 23 from the right end of the rod 25 in order to make an initial contact between the wedges 23 and the sections 21.

Also note that what the Official Action suggests does not appear to be operative. Let the MAAS rod 25 shown in Figure 7 have a small diameter on the left part 27 and a larger diameter on the right part 26. Absent the sections 21, the right wedge 23

could be applied to the rod 25 from the left end by without interference from the smaller diameter left part 27. Then the left wedge 23 could be applied to the left part 27. However, one must also consider the size of the wedges and the inside diameter of the sections 21. Although the right wedge 23 could be applied to the rod 25 from the left end by without interference from the smaller diameter left part 27, the wedge will not pass through the inside diameter of the sections 21. Therefore, it appears necessary to apply the right wedge 23 onto the right part 26 from the right end.

In view of this, the modification proposed by the Official Action is not viable.

For the reasons stated above, the obviousness rejection fails. Withdrawal of the rejection and allowance of the claims are respectfully solicited.

Claim 23

The same arguments presented as to claim 13 apply to claim 23. Note that claim 23 expressly recited the inner and outer tubes. Allowance of claim 23 is therefore solicited.

Claims 25-26

Claim 25 recites a clamping device in combination with two poles.

The Official Action states that MAAS discloses the clamping device comprising a threaded rod (25) with two oppositely threaded sections (26, 27), two expansion bodies (23)

each threaded onto a respective one of the two oppositely threaded sections, the two expansion bodies each capable of being engaged with a tube.

The Official Action acknowledges that MAAS does not disclose the clamping device in combination with two tubes, or a slotted, cylindrical clamping part (21).

HINNERS is offered as teaching a combination of two poles and a clamping device. The Official Action states that "It would have been obvious ... to provide the claiming device of Maas et al. with a combination of two poles of Hinnners in order to adjust the tubes with respect to each other to achieve desirable height for the pole."

The Official Action's analysis would replace the locking structure taught by HINNERS with the elements (21, 25, 23, 23) of the MAAS expanding device shown in Figure 7. This is pure and simple hindsight. There is no teaching or suggestion in MAAS that the rod 25, wedges 23, and sections 21 could be operative to adjust tubes with respect to each other.

The rejection fails to include, as required, why MAAS would suggest that the rod 25, wedges 23, and sections 21 could be operative to adjust tubes with respect to each other. The rejection is based on a mere conclusion. Therefore, there is no rational underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). The Supreme Court citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir.

2006) stated that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

There is no viable reasoning for using the selected elements from MAAS in combination with HINNERS. "One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1988). In an obviousness rejection, it is impermissible "to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." *In re Wesslau*, 353 F.2d 238, 241 (CCPA 1965).

HOSHINO

HOSHINO is offered as teaching (Figure 1) a radially expandable clamping part 20 with a lengthwise slot 22. The Official Action states that "It would have been obvious ... to provide the clamping part of Mass et al. from one piece with a lengthwise slot as taught by Hoshino in order to enable the clamping part to [be] expanded radially by the force exerted by the outer peripheral tapered surface of the [MAAS] expansion bodies". As noted above, the clamping part of MAAS was

previously identified by the Official Action as the six identical sections 21.

The Official Action has only indicated how the HOSHINO part 20 could be used as a substitute for the MAAS sections 21. The Official Action has offered no reason why this modification of MAAS would be motivated or advantageous. Applicant notes that the MAAS sections 21 already "enable the clamping part to [be] expanded radially by the force exerted by the outer peripheral tapered surface of the expansion bodies".

The Official Action has offered no advantage of changing the MAAS structure as proposed. The Official Action only indicates that the modified structure would be operative. Therefore, one of skill would not be motivated to make the modification proposed by the Official Action.

Further, HOSHINO does not show a threaded rod having two opposite threads, rather HOSHINO requires an additional screw 38 to activate lower expansion body 30. HOSHINO discloses a clamping part in the form of an cylinder having a lengthwise slot. Further, see that the second, lower expansion body of HOSHINO does not have an internal thread at all.

In making this rejection, it is clear that ex post analysis has been applied, i.e., inexpressible hindsight, as only a narrow selected part of the HOSHINO teaching has been applied.

The Official Action states that applicant does not disclose any criticality with respect to the two threaded sections having two different diameters.

This is incorrect.

With reference to Figure 3, and the disclosure found beginning at specification page 3, it is disclosed that the inventive clamping device 1 comprises a threaded part 7 which is fixed to the tube 3 by notches 9; its threaded rod 11 which projects over the tube 3 has two sections 13 and 15 with opposite threads. Here the thread of the section 13 which is adjacent to the tube 3 is made with a larger diameter than the thread of the threaded section 15 in the area of the free end of the threaded rod 11.

The problem solved by the features of claim 14 is to facilitate mounting expansion bodies 17 and 19 onto the threaded rod 11. As illustrated by figure 3, the clamping device 1 has two conical expansion bodies 17 and 19. One will note that the expansion body 17, which is screwed onto section 13 (having a larger diameter) of threaded rod 11 may be simply slipped over section 15 (having a smaller diameter) of the threaded rod 11. Once expansion body 17 is screwed on section 13 of the threaded rod 11, the clamping part 21 is positioned as shown in Figure 3. Finally, the threaded body 19 is screwed onto section 15 (having the smaller diameter) of the threaded rod 11.

In particular, with the threaded rod 11 fixedly mounted to tube 3, one will note that threading bolt 11, having sections 13 and 15 with different diameters allows positioning expansion body 17, clamping part 21 and expansion body 19 without difficulties. In addition to the two rod diameters advantageously being of different diameters, it should be appreciated that the sections 15 and 19 of the threaded rod must have opposite pitches to achieve this construction.

As such, it is clear that applicant has provided a structure which includes a criticality with respect to the two threaded sections. This criticality is not taught or suggested in the prior art and is therefore non-obvious.

Reconsideration and allowance of claim 25 are respectfully requested.

Claim 26

CRUNWELL is offered as teaching a threaded rod (1, Fig. 1) having a first threaded section (22) has a greater diameter than a second threaded section (23) so that the nut member may pass over the first, outermost thread without hindrance. The Official Action states that "It would have been obvious ... to provide the first threaded section of MAAS et al. with a greater diameter than the second threaded section as taught by Crunwell in order [that] one of the expansion bodies slide over the second threaded portion without hindrance and become threadably engaged on the first threaded portion."

Again, as with claim 13, applicant does not see the relevance of CRUNWELL to MAAS. In CRUNWELL a fastening device, intended to be vibration resistant, has a lower shaft of a reduced diameter which is to be threaded in a main part 25. In order to secure the device, there is a nut 2 applied to the upper part of the device shaft. CRUNWELL teaches that by making the diameter of the lower shaft less than the diameter of the upper shaft, the nut 2 can be easily passed over the lower shaft. This is helpful in that the nut 2 must be passed over the lower shaft as the device has a head 21 which prevents the nut 2 from being applied via the top part.

The problem present in CRUNWEL is not present in MAAS. That is, the wedges 23 can easily be applied to the rod 25 from either end. Indeed, in MAAS if the left end of the rod 25 is connected to a drive means, then it would be more convenient to apply the right wedge 23 from the right end of the rod 25 in order to make an initial contact between the wedges 23 and the sections 21.

Also note that what the Official Action suggests does not appear to be operative. Let the MAAS rod 25 shown in Figure 7 have a small diameter on the left part 27 and a larger diameter on the right part 26. Absent the sections 21, the right wedge 23 could be applied to the rod 25 from the left end by without interference from the smaller diameter left part 27. Then the left wedge 23 could be applied to the left part 27. However, one

must also consider the size of the wedges and the inside diameter of the sections 21. Although the right wedge 23 could be applied to the rod 25 from the left end by without interference from the smaller diameter left part 27, the wedge will not pass through the inside diameter of the sections 21. Therefore, it appears necessary to apply the right wedge 23 onto the right part 26 from the right end.

In view of this, the modification proposed by the Official Action is not viable.

For the reasons stated above, the obviousness rejection fails as to claim 26. Withdrawal of the rejection and allowance of the claim are respectfully solicited.

Withdrawal of the rejections and allowance of all the claims are requested.

Should there be any matters that need to be resolved in the present application; the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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